

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) ~~Protein~~ An isolated protein, wherein said protein that as is an active mature protein protein/peptide (protein) and wherein said protein

a) ~~has one of the following sequences:~~

~~SEQ ID NO: 1 (Sequence Protocol No. 1) (SAP-2); or~~

~~SEQ ID NO: 2 (Sequence Protocol No. 2) (SAP-3); or~~

b) ~~that as an active mature protein~~ has allelic modifications of SEQ ID NO: 1 ~~one of the amino acid sequences that are mentioned above under a)~~, whereby at least one amino acid of the amino acid sequence is substituted, deleted, or inserted, without in this case significantly affecting the activity of the active protein, or

c) ~~that as an active, mature protein~~ has post-translational modifications of SEQ ID NO: 1 ~~one of the sequences under a) and b)~~, and said modifications do not significantly affect the activity of the active protein,

wherein said activity of the active protein is antimicrobial or antibiotic activity.

2. (Canceled)

3. (Previously Presented) Protein according to claim 1, which has a mobility of 6 kDa in the SDS-gel electrophoresis.

4. (Withdrawn) Protein, which comprises a signal sequence and a mature protein according to claim 1, whereby the protein has one of the following sequences:

SEQ ID NO: 3 (PreSAP-2); or

SEQ ID NO: 4 (PreSAP-3);

or

whereby the protein has allelic modifications of one of the amino acid sequences

that are mentioned above under d), whereby at least one amino acid of the amino acid sequence is substituted, deleted or inserted, without in this case significantly affecting the activity of the mature active protein,

or

whereby the protein has post-translational modifications of one of the sequences under d) and e), and said modifications do not significantly affect the activity of the active mature protein.

5. (Previously Presented) Protein according to claim 1, whereby protective groups are arranged at the N-terminus and/or the C-terminus.

6. (Previously Presented) Protein according to claim 1, which is a recombinant protein.

7. (Withdrawn) cDNA or DNA,

whereby the cDNA or DNA codes one of the following amino acid sequences:

SEQ ID NO: 1 (SAP-2);

SEQ ID NO: 2 (SAP-3);

SEQ ID NO: 3 (PreSAP-2); or

SEQ ID NO: 4 (PreSAP-3);

or

whereby the cDNA or DNA codes allelic modifications of one of the amino acid sequences under aa),

in which at least one amino acid of the amino acid sequence is substituted, deleted, or inserted, without in this case significantly affecting the activity of the active protein.

8. (Withdrawn) cDNA or DNA according to claim 7, whereby the cDNA or DNA

codes a mature protein.

9. (Withdrawn) cDNA or DNA,

whereby the cDNA or DNA exhibits one of the following nucleotide sequences:

SEQ ID NO: 5; (cDNA-SAP-2)

SEQ ID NO: 6; (cDNA-SAP-3);

or

whereby the cDNA or DNA exhibits allelic modifications of one of the nucleotide sequences under cc), whereby at least one nucleotide is substituted, deleted, or inserted, without in this case significantly affecting the activity of the protein, which is coded by the allelic modification of the nucleotide sequence under cc).

10. (Withdrawn) cDNA or DNA,

whereby the cDNA or DNA exhibits one of the following nucleotide sequences:

SEQ ID NO: 7; (cDNA-PreSAP-2) or

SEQ ID NO: 8 (cDNA-PreSAP-3),

or

whereby the cDNA or DNA exhibits an allelic modification of one of the nucleotide sequences under ee), whereby at least one nucleotide is substituted, deleted or inserted, without in this case significantly affecting the activity of the active protein, which is coded by the allelic modification of the nucleotide sequence under ee).

11. (Withdrawn) Vector that contains a cDNA or DNA according to claim 7, and a suitable promoter and optionally a suitable enhancer.

12. (Withdrawn) Vector according to claim 11 in a eukaryotic or prokaryotic host cell that is transformed with the vector.

13. (Previously Presented) Protein according to claim 1 as a pharmaceutical active ingredient.

14. (Previously Presented) Pharmaceutical composition that contains one of the proteins according to claim 1 or a mixture thereof in the presence of pharmaceutically compatible and acceptable compounds and vehicles.

15. (Withdrawn) Process for synthesizing one of the proteins according to claim 1, whereby the proteins are synthesized according to the solid-phase method or according to the liquid-phase method.

16. (Withdrawn) Binding molecules, single-chain proteins, antibodies or fragments of antibodies that specifically detect domains on the mature protein according to claim 1.

17. (Currently Amended) A method of treating or preventing infections caused by microorganisms in a subject in need thereof, said method comprising administering to said subject ~~Use of one or more of the proteins according to claim 1 or mixture thereof for the production of a medication for treating infections that were caused by microorganisms or for prevention of such infections.~~

18. (Withdrawn) Bandage with at least one protein according to claim 1 or with syngeneic or allogeneic human cells that are transfected with the DNA or cDNA whereby the cDNA or DNA codes one of the following amino acid sequences:

SEQ ID NO: 1 (SAP-2);

SEQ ID NO: 2 (SAP-3);

SEQ ID NO: 3 (PreSAP-2); or

SEQ ID NO: 4 (PreSAP-3)

or

whereby the cDNA or DNA codes allelic modifications of one of the amino acid sequences under aa),

in which at least one amino acid of the amino acid sequence is substituted, deleted, or inserted, without in this case significantly affecting the activity of the active protein.

19. (Withdrawn) Use of at least one protein according to claim 1 for the production of antibodies or fragments thereof.

20. (Withdrawn) Use of an antibody or fragment thereof according to claim 19 as a diagnostic agent.